

<p>3-Amino-6-[4-(2-hydroxy-2-thiophen-2-yl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide</p>	
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or pharmaceutically acceptable salts, tautomers and isomers thereof.

### REMARKS

Claims 1-23 are pending in the application as of the November 19, 2004 Office Action. Claims 1-23 have been cancelled. Claims 24-28 have been added.

Claim 24 is directed to compounds of general formula I with heterocyclic substitutions at R<sub>2</sub> with R<sub>2</sub> being is further substituted by R<sub>6</sub>CH(OH)CH<sub>2</sub>NH- and R<sub>6</sub> can be optionally substituted phenyls. Claim 25 is directed to compounds of general formula I wherein R<sub>2</sub> is restricted to substituted piperdiny compounds. Claim 26 is directed to compounds according to general formula I wherein R<sub>1</sub> is restricted to C<sub>1-6</sub>alkyl, optionally partially or fully halogenated and optionally substituted with one to two R<sub>9</sub> and R<sub>2</sub> is piperdiny(CH<sub>2</sub>)<sub>m</sub>.

Species claim 27 is directed to selected optionally substituted R<sub>6</sub> phenyl compounds. Species claim 28 is directed to selected optionally substituted R<sub>6</sub> phenyl compounds.

#### **Priority**

The Examiner noted the incomplete priority claim. Accordingly, applicant has inserted a proper reference to the relationship of the instant application as a continuation in part to US nonprovisional application 10/453,175.

#### **Claim Rejections under 35 U.S.C. §112**

In section 4a of the Office Action the Examiner rejected Claims 1-17 and 23 on a number of

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grounds under 35 U.S.C. §112 relating to grammar and syntax. New claims 24 – 28 have been added in view of these rejections. The Examiner also rejected the claims for the use of the term “ester.” In the interest of facilitating prosecution of this case Applicant has proposed new claims 24-28 that do not recite the term “ester”. The Examiner also rejected the claims because of the recitation of the term “isomer.” Applicant has inserted the term “or pharmaceutically acceptable salts pharmaceutically acceptable salts, isomers or tautomers thereof” into new claims 24-28.

In section 4b of the Office Action the Examiner rejected claim 2-5 as being improperly dependent on the composition claim 1. New claims 24-28 have been rewritten in view of this rejection.

In section 4c of the Office Action the Examiner rejected claims 2-5 under 35 U.S.C. §112 on the assertion that said claims fail to clearly define whether the claims were directed to a compound or a mixture of the compound and the pharmaceutically acceptable salts thereof. New claims 24-28 have been written in view of view of this rejection and the Examiners comments that singular /alternative format would be preferable. The applicant has also drafted the new claims in view of the Examiners rejections under 4d and 4e.

In section 4f the Examiner rejected claim 17 on the assertion that it was not clear what a “therapeutically effective amount” is and also that the form of the claim was improper. Claim 17 has been cancelled thereby removing the ground for this rejection.

In section 4g the Examiner rejected claim 23 under 35 USC §112. Applicant has added new claims 24-28 have been added in view of the Examiner’s suggestions.

In point 5 the Examiner objected to claim 17 as being a substantial duplicate of claim 1. Claim has been removed thereby removing this ground for rejection.

**Claim Rejections under 35 U.S.C. §102**

The Examiner rejected claims 1-4, and 17 under 35 U.S.C. §102 as being anticipated by the

Kadushkin, Wagner, Attaby, Ghorab, Kaigorodova and Sharanin references. The Examiner indicated that compounds wherein R2 is a heterocycle as defined in claim 3-5 and the compositions thereof and the process of making thereof would not be anticipated by these references.

Accordingly, applicant has drafted new generic claims 24 to 26 wherein R2 is restricted to the subject matter suggested by the Examiner. Therefore, this ground of rejection has been overcome and request is made for the rejection to be withdrawn. Species claim 27 is directed to compounds found in Table X at page 70 of the instant specification and having a substituted piperidine at the R2 position. Species claim 28 is other selected compounds of general formula I in the specification.

#### **Claim Rejection under 35 USC §103**

The Examiner rejected claims 1, 3 and 17 as being unpatentable over Arendsen wherein Arendsen discloses thieno [2,3-c] pyridine compounds. While the applicant does not agree with the ground of rejection in the interest of facilitating prosecution of the case applicant has proposed new claims 24-28 are directed to compounds wherein R2 is restricted to substituted heterocycles thereby overcoming this ground for rejection.

The Examiner also rejected claims 1, 3 and 17 over Wagner on the assertion that the instant amino methyl would be an obvious modification of Wagner's amino hydrogen. Applicant proposed claims 24-28 do not embrace amino methyl at R1.

#### **Double Patenting**

The Examiner rejected claim 1-17, 23 on obviousness-type double patenting over claims 1-6, 8, 14 of co-pending application No. 10/453175. A terminal disclaimer in compliance with 37 CFR 1.321 has been executed to overcome this ground for rejection. The instant application and the co-pending application are commonly owned by Boehringer Ingelheim Pharmaceuticals, Inc.

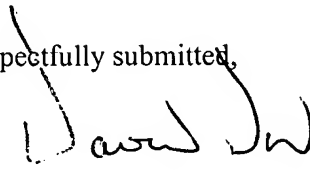
It is not believed that any fees are required beyond those that may otherwise be provided for in accompanying documents. However, if additional fees are necessary to prevent

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abandonment of this application, then any fees required therefore are hereby authorized to be charged to our Deposit Account No. 02-2955.

Applicants respectfully submit that all of the subject claims are in the condition for allowance. If the Examiner feels that a telephone interview would be helpful in advancing prosecution of this application, the Examiner is invited to contact the attorney below.

Respectfully submitted,



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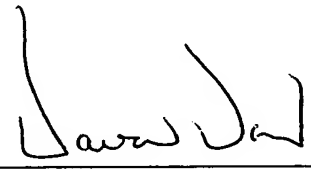
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David A. Dow